



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/806,319

03/23/2004

Yong-jin Ahn

1293.1278C5

1755

49455 . 7590 11/02/2006

STEIN, MCEWEN & BUI, LLP
1400 EYE STREET, NW
SUITE 300
WASHINGTON, DC 20005

EXAMINER

CHOW, LIXI

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,319

Applicant(s)

AHN ET AL.

Examiner

Lixi Chow

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/17/06 has been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/806,320. Although the conflicting claims are not identical, they are not patentably distinct

from each other because the copending application claims includes all the limitations of the instant application claims, respectively. The copending application claims also includes additional limitations (note that the method claims of the instant application are obvious in view of the apparatus claims in the copending application). Hence, the instant application claims are generic to the species of invention covered by the respective copending application claims. As such, the instant application claims are anticipated by the copending application claims and are therefore not patentably distinct therefrom. (see *Eli Lilly and Co. v. Barr Laboratories Inc.*, 58 USPQ2D 1869, “a later genus claim limitations is anticipated by, and therefore not patentably distinct from, an earlier species claim”, *In re Goodman*, 29 USPQ2d 2010, “Thus, the generic invention is ‘anticipated’ by the species of the patented invention” and the instant “application claims are generic to species of invention covered by the patent claim, and since without terminal disclaimer, extant species claims preclude issuance of generic application claims”).

The subject matter claimed in claim 1 of instant application is not patentably distinct from the subject matter claimed in claim 1 of the copending application 10/806,320, i.e., the limitation, “a leading one of the second pulses is set to the low second multi-pulse power level and a power level between an end of the second multi-pulse and a first one of the pulses of the first multi-pulse is set to the high second multi-pulse power level” of the instant application corresponds to the limitation, “a leading one of the pulses of the second multi-pulse set to the low second multi-pulse level, a power level between an end of the second multi-pulse and a first one of the pulses of the first multi-pulse set to the high second multi-pulse level”. Furthermore, claims 2 and 3 of the instant application correspond to claims 2 and 3 of the copending application; claims 4 and 5 of the instant application correspond to claim 13 of the copending

application; claims 6-10 of instant application correspond to claims 16-24 of the copending application; and claims 11-17 of the instant application correspond to claims 25-29 of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Dekker (USP 2002/0003762).

Regarding claim 4:

Dekker discloses a method of forming a first state (see Fig. 1A, reference #11) and a second state (see Fig. 1A, reference #12) alternatively and sequentially on an optical recording medium in response to input data having a first level and a second level in an optical recording apparatus, the method comprising:

generating a recording waveform (see Fig. 1A, reference #21) which includes a first multi-pulse (Fig. 1A, reference #13) having a plurality of first pulses corresponding to the first level of the input data and a second multi-pulse (Fig. 1A, reference #14) having a plurality of

Art Unit: 2627

second pulses corresponding to the second level of the input data, wherein a leading one of the second pulses is set to a low level (Fig. 1A, the pulse connecting the multi-pulse 13 and the multi-pulse 14 is a low level) and a power level between an end of the second multi-pulse and a first one of the pulses of the first multi-pulse is set to a high level (Fig. 1A, the pulse at the end of the multi-pulse 14 and the beginning of another multi-pulse 13 is set at P1, which is a high level), and the generating of the recording waveform comprising: changing the first multi-pulse according to a characteristic of the second pulses of the second multi-pulse (see Fig. 1A).

Regarding claim 5:

Dekker discloses the method of claim 4, wherein the second multi-pulse comprises a starting pulse and an ending pulse, and the changing of the first multi-pulse comprises:

changing a start pulse of the first pulse of the first multi-pulse according to a characteristic of one of the starting pulse and the ending pulse of the second multi-pulse (see Fig 1A; the characteristic of the start pulse of the first pulse of the first multi-pulse depends on the characteristic of the ending pulse of the second multi-pulse).

Regarding claim 6:

Dekker discloses the method of claim 5, wherein the changing of the starting pulse of the first multi-pulse comprise:

changing a voltage level of the starting pulse of the first multi-pulse (see Fig 1A).

6. Claims 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohno et al. (US 5,150,351; hereafter Ohno).

Regarding claim 13:

Ohno discloses a method of forming a first state (see Fig. 4(a); first state corresponds to the high level input data) and a second state (see Fig. 4(a); second state corresponds to the low level input data) alternatively and sequentially on an information storage medium in response to input data having a first level and a second level, respectively, in a recording apparatus, the method comprising:

generating a recording waveform (see Fig 4(b)) which comprises a recording pattern corresponding to the first level of the input data and having a recording pattern multi-pulse, and erase pattern preceding the recording pattern and having an erase pattern multi-pulse corresponding to the second level of the input data, and a cooling pulse concatenating the pattern and a preceding other recording pattern (see Fig. 4(b); the low power level pulse connecting the recording pulse and the erase pulse is the cooling pulse), wherein:

the erase pattern multi-pulse alternates between a low multi-pulse level and a high multi-pulse level, and a leading pulse of the erase pattern multi-pulse is set to the low multi-pulse level and a power level between an end pulse of the erase pattern multi-pulse and a first pulse of the recording pattern multi-pulse is set to the low multi-pulse level (see Fig. 4(b)).

Regarding claim 15:

Claim 15 recites similar limitations as in claim 13; hence claim 15 is rejected under the same reasons set forth in claim 13.

Response to Arguments

7. Applicant's arguments with respect to claims 4-6, 13 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. No comment will be made in this office action regarding the allowability of claims 1-3, 7-12, 14 and 16-20 due to the Double Patenting rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lixi Chow whose telephone number is 571-272-7571. The examiner can normally be reached on Mon-Fri, 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC 10/27/06


ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER